

CALL FOR PAPERS
IEEE Journal of Selected Areas in Communications
MULTI-MEDIA NETWORK RADIOS

What will it take to enmesh the explosive growth of the World Wide Web (WWW) and the potential for Personal Communication Services (PCS) to engender the next generation of mobile user applications?

In the past, when voice applications were predominant, the specific characteristics of voice were closely studied and exploited in the design of low-cost portable radios. Such designs may not be adequate for supporting multimedia exchanges between a mobile population of users that have a diverse collection of bandwidth and Quality of Service (QoS) needs. In this new environment, users' needs will vary dynamically and may require the rapid reallocation of radio resources. Furthermore, network performance parameters such as delay are influenced by radio receiver parameters such as Bit Error Rate (BER) and Signal-to-Interference Ratio (SIR); but there is a need to explicitly relate such QoS metrics to the allocation of radio resources. Topics of interest for this special issue will include, but are not limited to, the following:

- Impact of physical layer impairments on higher layers
- Impact of Forward Error Control (FEC), Automatic Repeat Request (ARQ), power control, and interleaving on multi-media applications
- Coding strategies to match multi-media applications to the wireless channel, including joint source and channel coding
- Radio designs for bursty traffic from mobile users
- Dynamically reconfigurable multi-mode, multi-format radio architectures
- QoS support through radio reconfiguration
- Radio designs for context awareness and impairment concealment
- Energy management strategies
- Software interfaces for control of radio architectures
- High-speed radios for Wireless ATM

Original, unpublished contributed and invited articles will be considered for the issue. Authors are asked to submit a summary to Ramesh Rao according to the following timetable. Reviewers will provide feedback for the authors and complete manuscripts will be fully reviewed prior to publication.

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